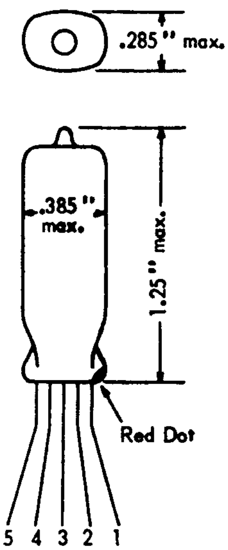
SUBMINIATURE PENTODE

TYPE CK6281

The CK6281 is a filament type pentode of subminiature construction designed primarily for use in resistance coupled audio frequency and direct coupled amplifiers. The tube features low battery drain, long life, small size, and low microphonic level. The flexible terminal leads may be soldered or welded directly to the terminals of circuit components without the use of sockets. Standard inline subminiature sockets may be used by cutting the leads to a suitable length.



MECHANICAL DATA

ENVELOPE: T-2X3 Glass ●

BASE: None (0.016" tinned flexible leads. Length: 1.5" min. Spacing: 0.048" center-to-center)

TERMINAL CONNECTIONS: *(Red dot is adjacent to lead 1)*

- Lead 1 Plate
- Lead 2 Grid #2
- Lead 3 Filament, Positive; Grid #3
- Lead 4 Grid #1
- Lead 5 Filament, Negative Grid #3; Shield

MOUNTING POSITION: Any

ELECTRICAL DATA

DIRECT INTERELECTRODE CAPACITANCES: *(μμfds)*

Grid to Plate	0.01	max.
Input	2.5	
Output	3.4	

RATINGS - ABSOLUTE MAXIMUM VALUES:

Filament Voltage	0.625 ± 20%	volts
Plate Voltage	25	volts
Grid #2 Voltage	25	volts
Cathode Current	0.1	ma.

CHARACTERISTICS AND TYPICAL OPERATION:

Filament Voltage	0.625	volts
Filament Current	20	ma.
Plate Voltage	15	volts
Grid #2 Voltage	15	volts
Grid #1 Voltage	1.0	volts
Plate Current	50	μa.
Grid #2 Current	20	μa.
Transconductance	105	μmhos
Plate Resistance	2.0	meg.

CHARACTERISTICS AND TYPICAL OPERATION - RESISTANCE COUPLED CLASS A1 AMPLIFIER:

	First Stage		Second Stage		
Filament Voltage	0.625	0.625	0.625	0.625	volts
Filament Current	20	20	20	20	ma.
Plate and Grid #2 Supply Voltage	15	22.5	15	22.5	volts
Grid #1 Voltage ■	0	0	-0.625	-0.625	volts
Plate Resistor ♦	1.0	1.0	1.0	1.0	meg.
Grid #2 Resistor ♦	2.2	2.7	1.0	1.5	meg.
Average Voltage Gain (G1 to P) ▲	26:1	37:1	22:1	33:1	
Approx. Voltage Gain (G2 to P)	3:1	4:1	3:1	4:1	

● *The bulb is entirely coated with a metallic shield connected to lead 5.*

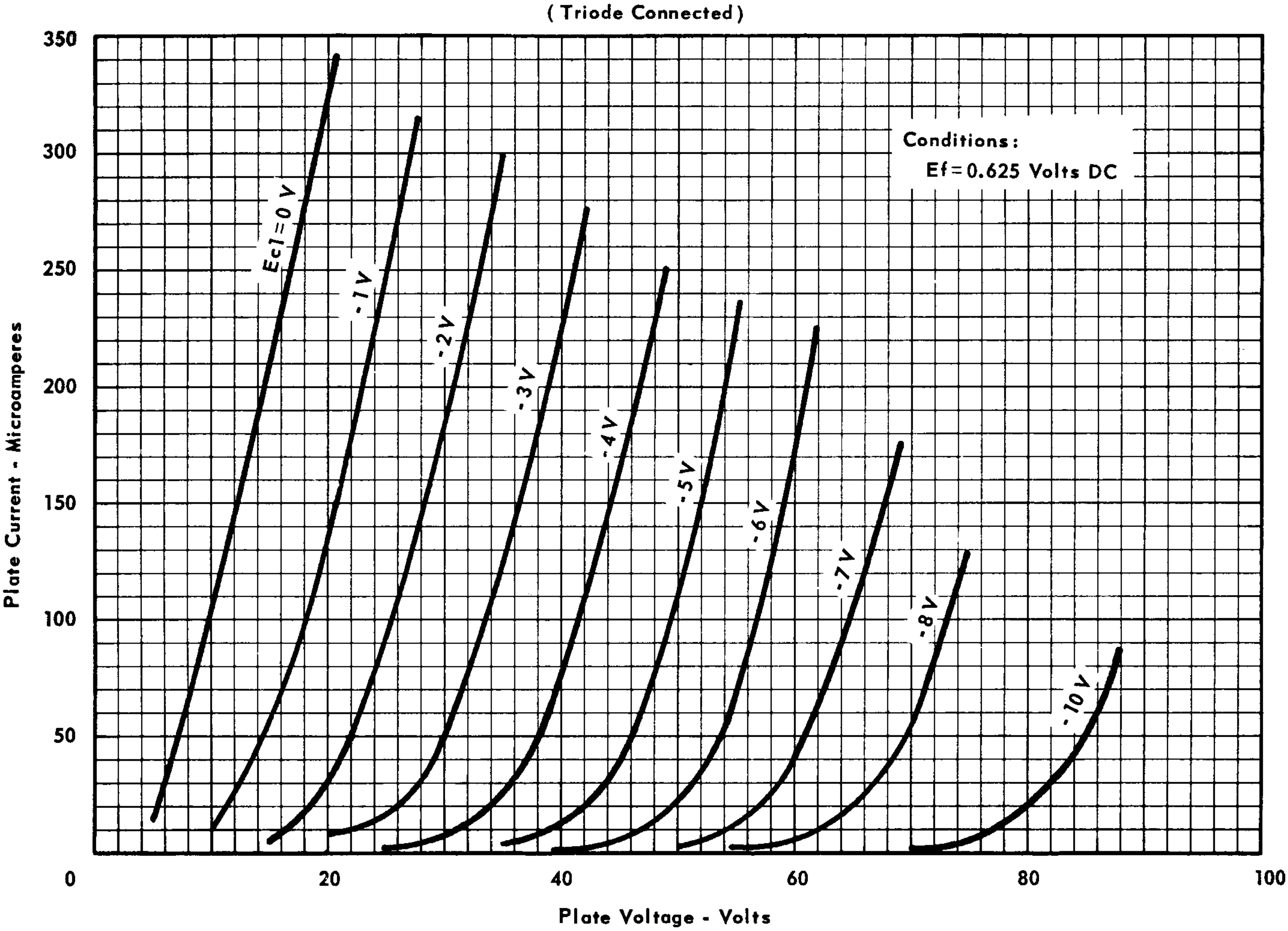
■ *Control Grid should be returned through approximately 5 to 22 megohms to negative filament or bias voltage.*

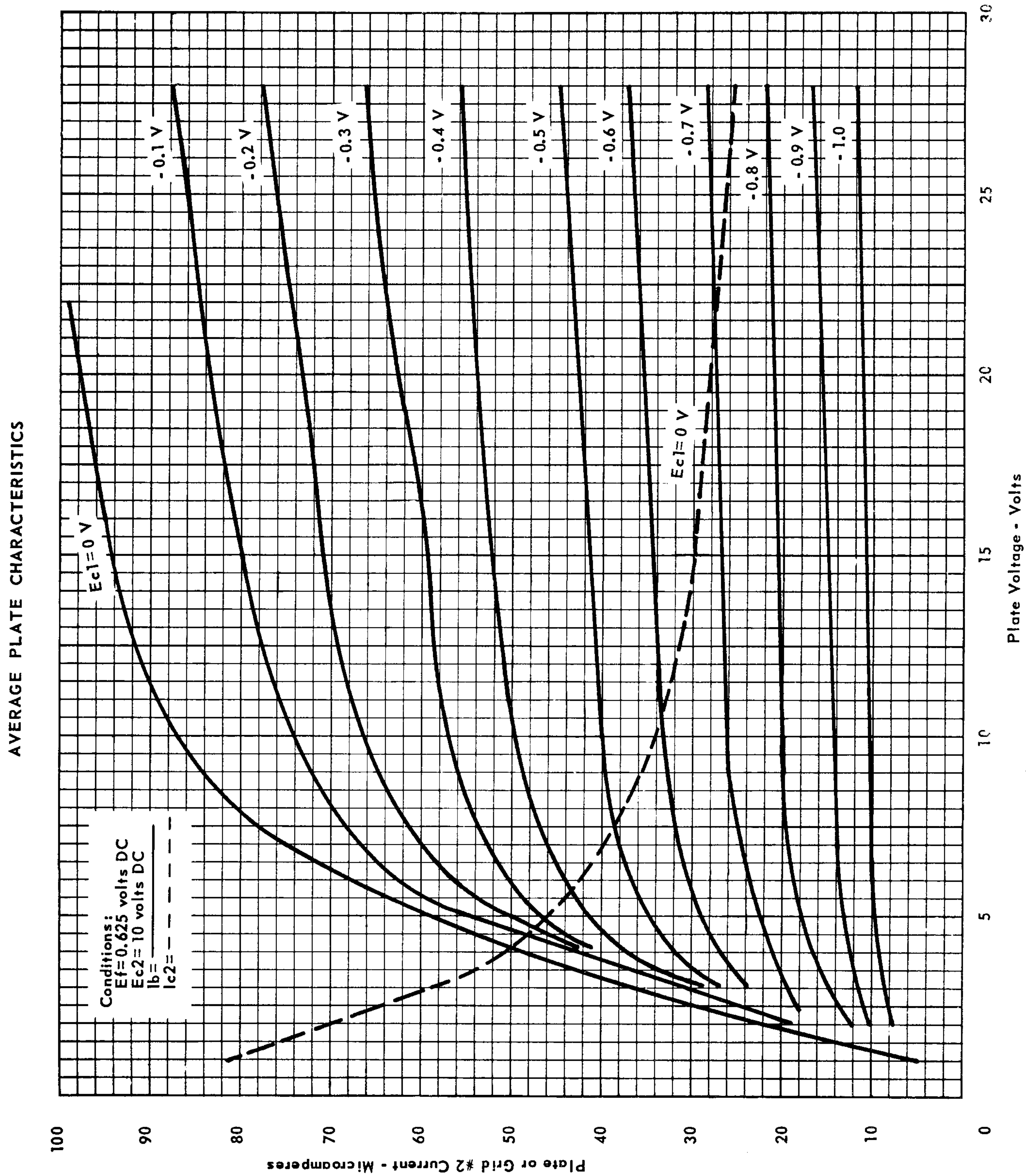
♦ *Other plate and Grid #2 resistor values may be used to obtain less variation in voltage gain between tubes at the possible expense of less average gain.*

▲ *The values of voltage gain are quoted for a coupled load of 5 megohms, zero source impedance, and a 5 megohm grid resistor. The reactive impedances (Cin, Cout, Cg1, Cg2, CL) are of such values that they have negligible effect upon the gain.*

Tentative Data

AVERAGE PLATE CHARACTERISTICS
(Triode Connected)




AVERAGE PLATE CHARACTERISTICS
Conditions:
Ef=0.625 volts DC
Ec2=10 volts DC
Ib=
Ic2=
Ec1=0 V
-0.1 V
-0.2 V
-0.3 V
-0.4 V
-0.5 V
-0.6 V
-0.7 V
-0.8 V
-0.9 V
-1.0
Ec1=0 V
Plate Voltage - Volts
0
5
10
15
20
25
30
Plate or Grid #2 Current - Microamperes
100
90
80
70
60
50
40
30
20
10
0